UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,567	11/24/2003	Justin Russell Bendich	SJO920030051US1	5721

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ART UNIT	PAPER NUMBER
2143	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/720,567	BENDICH ET AL.
	Examiner	Art Unit	
	ANISH SIKRI	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _18 January 2008_.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-22_ is/are pending in the application.
  4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-22_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on _24 November 2003_ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☐ All b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _11/24/03_.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Previous final is withdrawn, and new final is used to clarify the rejections

Information Disclosure Statement

The information disclosure statement submitted on 11/24/2003 been considered

by the Examiner and made of record in the application file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a

foreign country or in public use or on sale in this country, more than one year

prior to the date of application for patent in the United States.

Claims 1-6, 15-20 are rejected under U.S.C. 102(b) as being anticipated by

Gajjar et al (US Pub 20020174306).

Consider **claim 1**, Gajjar et al disclosed the modeling apparatus for provisioning a

storage resource, the apparatus comprising (Gajjar et al, [0008]-[0009], Gajjar disclosed

on how a storage provisioning policy helps in creating a storage model): a monitoring

module configured to monitor a plurality of existing storage resources corresponding to

a client (Gajjar et al, [0008], [0028], Gajjar et al disclosed on how physical storage

devices are connected), one of the plurality of existing storage resources designated as

a model storage resource (Gajjar et al, [0007]-[0009], Gajjar et al disclosed on creating

storage policy which in turn is used to create model storage resources based on the

specified model requirements); a policy module configured to store a plurality of storage

provisioning policies (Gajjar et al, [0008], Gajjar et al disclosed the use of storage

policies), the plurality of storage provisioning policies defining a modeling policy (Gajjar

et al, [0055], Gajjar et al disclosed on how storage policies provide a model policy for

creation of specific storage resources). A provisioning module configured to provision a

new storage resource for the client according to the modeling policy (Gajjar et al, [0055-

0056], Gajjar et al disclosed provisioning storage using a storage provisioning policy),

the new storage resource modeled after the model storage resource (Gajjar et al, [0046-

0047], Gajjar et al disclosed on the use of a new storage modeled after model storage

policy). Gajjar et al's invention disclosed on how first storage devices are monitored on

the network (Gajjar et al, [0022], [0028]) and the use of a storage provisioning polices

for the purpose of allocating new storage resources to the apparatus, used in

conjunction with a monitoring module (Gajjar et al, [0046-0047]).

Consider **Claim 2**, and as applied to claim 1, Gajjar et al discloses a specification

module configured to allow a user to specify one of the plurality of storage provisioning

policies (Gajjar et al [0046-0047). Gajjar et al's invention clearly shows the use of a

storage provisioning polices for the purpose of allocating new storage resources to the

apparatus.

Consider **Claim 3**, and as applied to claim 1 above, Gajjar et al discloses where

a model storage resource is stored in a storage pool in a storage server (Gajjar et al,

[0008]-[0009) and the modeling policy specifies a storage location in which the new

storage resource is provisioned (Gajjar et al, [0046-0047]). Gajjar et al's invention

clearly shows the use of a storage provisioning polices for the purpose of allocating new storage resources to the apparatus, used in conjunction with a monitoring module.

Consider **Claim 4**, and as applied to claim 3 above, Gajjar et al discloses the storage location comprises the same storage server as the model storage resource (Gajjar et al, [0055-0056]). Gajjar et al's invention clearly shows that the storage can reside in a single standing server for the purpose of locally allocating storage resources locally.

Consider **Claim 5**, and as applied to claim 4 above, Gajjar et al, discloses the storage location comprises the same storage pool as the model storage resource (Gajjar et al, [0055-0056]). Gajjar et al's invention clearly shows that the locations of the storage resources are in the same apparatus.

Consider **Claim 6**, and as applied to claim 1 above, Gajjar et al, discloses the modeling policy specifies a model group to which the model storage resource belongs (Gajjar et al, [0046-0047]). Gajjar et al invention clearly shows on how the modeling policy identifies the physical groups to which the storage resource belongs to on the apparatus.

Claim 15 has similar limitations as Claim 1. Therefore it is rejected under the same rational as Claim 1.

Claim 16 has similar limitations as Claim 2. Therefore it is rejected under the same rational as Claim 2.

Claim 17 has similar limitations as Claim 3. Therefore it is rejected under the same rational as Claim 3.

Claim 18 has similar limitations as Claim 4. Therefore it is rejected under the same rational as Claim 4.

Claim 19 has similar limitations as Claim 5. Therefore it is rejected under the same rational as Claim 5.

Claim 20 has similar limitations as Claim 6. Therefore it is rejected under the same rational as Claim 6.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed

or described as set forth in section 102 of this title, if the differences between the

subject matter sought to be patented and the prior art are such that the subject

matter as a whole would have been obvious at the time the invention was made

to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negatived by the manner in which the invention was

made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.

2.   Ascertaining the differences between the prior art and the claims at issue.

3.   Resolving the level of ordinary skill in the pertinent art.

4.   Considering objective evidence present in the application indicating

       obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims **7-14, 21 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Gajjar et al (US Pub 20020174306), and further in view of Dalal et al (US Pub 20040123063).

Consider **Claim 7**, and as applied to claim 6 above, Gajjar et al, does not explicity state the model group comprises a volume group used by the client.

Nonetheless, Dalal et al disclosed the model group comprises a volume group used by the client (Dalal et al, [0019] and [0188]). Dalal et al's invention clearly shows on the use of volume groups.

Both Gajjar et al and Dalal et al provide features related to storage area management. Therefore one of ordinary skill would have been motivated to combine the teachings since both are within the same environment.

Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use volume groups by client, taught by Dalal et al, in the system of Gajjar et al for the purpose of creating local volume groups extents for allocating and managing storage resources on the apparatus.

Consider **Claim 8**, Gajjar et al does not explicitly state the new storage resource is assigned to a file system and expands a storage capacity of the file system.

Nonetheless, Dalal et al clearly shows the new storage resource is assigned to a file system and expands a storage capacity of the file system (Dalal et al, [0018]). The use of file system is clearly shown in Dalal et al's invention of storage allocation.

Both Gajjar et al and Dalal et al provide features related to storage area management. Therefore one of ordinary skill would have been motivated to combine the teachings since both are within the same environment.

Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use of a file system, taught by Dalal et al, in the system of Gajjar et al for the purpose having storage resources/physical groups to be configured to use by the existing file system of the apparatus/server.

Consider **Claim 9**, and as applied to claim 8 above, Gajjar et al as modified by Dalal et disclosed the modeling policy specifies a model group to which the model storage resource belongs, the model group comprising a volume group in which the file system

is stored Dalal et al, [0018],[0019] and [0188]). Dalal et al disclosed on how the volume

groups are configured with the file system.

Consider **Claim 10**, and as applied to claim 1, Gajjar et al, does not explicitly

state the new storage resource is assigned to a raw logical volume and expands a

storage capacity of the raw logical volume.

Nonetheless, Dalal et al discloses the new storage resource is assigned to a raw

logical volume and expands a storage capacity of the raw logical volume (Dalal et al,

[0017]). Dalal et al disclosed on how logical volumes are added to the system.

Both Gajjar et al and Dalal et al provide features related to storage area

management. Therefore one of ordinary skill would have been motivated to combine

the teachings since both are within the same environment.

Therefore it would have been obvious to a person of ordinary skill in the art at the

time of the invention was made to implement the use logical volumes configured to be

used in the system, taught by Dalal et al, in the system of Gajjar et al for the purpose of

increasing or allocating storage resources of the apparatus.

Consider **Claim 11**, Gajjar et al discloses a storage resource manager server

configured to monitor a plurality of existing storage resources corresponding to the

client (Gajjar et al, [0008], [0028], Gajjar et al disclosed on how physical storage devices

are connected) and to provision a new storage resource for the client according to a

modeling policy (Gajjar et al, [0032]-[0033]) and the new storage resource modeled

after a model storage resource; and a storage server configured to store the model storage resource and the new storage resource (Gajjar et al, [0046-0047]).

Gajjar et al does not explicitly state the system, in which it indicates a client having a file system.

Nonetheless, Dalal et al disclosed a client having a file system (Dalal et al, [0018]). The use of file system is clearly shown in Dalal et al's invention of storage allocation.

Both Gajjar et al and Dalal et al provide features related to storage area management. Therefore one of ordinary skill would have been motivated to combine the teachings since both are within the same environment.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use of a file system, taught by Dalal et al, in the system of Gajjar et al for the purpose of accessing the new storage resources of the system.

Consider **Claim 12**, and as applied to claim 11 above, Gajjar et al, in view of Dallal et al disclosed the storage resource manager repository configured to store a plurality of storage provisioning policies, the plurality of storage provisioning policies defining the modeling policy (Gajjar et al, [0007]-[0008]). Gajjar et al's invention clearly shows the use of a storage provisioning polices for the purpose of allocating new storage resources to the system.

Consider **Claim 13**, and as applied to claim 12 above, Gajjar et al in view of Dalal et al disclosed a module where configured to allow a user to access and specify one of the pluarity of storage provisioning policies (Gajjar et al, [0032]-[0033]). Gajjar et al's invention clearly shows the use of a storage provisioning polices for the purpose of allocating new storage resources to the system by the user.

Consider **Claim 14**, and as applied to claim 11 above, Gajjar et al in view of Dalal et al disclosed a storage resource is stored in a storage pool in the storage server (Gajjar et al, [0023]) and the modeling policy specifies a storage location in which the new storage resource is provisioned and specifies a model group to which the model storage resource belongs (Gajjar et al, [0046-0047]). Gajjar et al's invention clearly shows the use of a storage provisioning polices for the purpose of allocating new storage resources to the system.

Consider **Claim 21**, and as applied to claim 20 as above, Gajjar et al, does not explicitly state the model group comprises a volume group used by the client. Nonetheless, Dalal et al clearly shows the model group comprises a volume group used by the client (Dalal et al, [0018]-[0019] and [0188]). Dalal et al's invention clearly shows on the use of volume groups.

Both Gajjar et al and Dalal et al provide features related to storage area management. Therefore one of ordinary skill would have been motivated to combine the teachings since both are within the same environment

Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the use volume groups by client, taught by Dalal et al, in the system of Gajjar et al for the purpose of creating local volume groups extents for allocating and managing storage resources on the computer readable storage medium.

Consider **Claim 22**, and as applied to claim 21 as above, Gajjar et al as modified by Dalal et al, disclosed new storage resource corresponds to a file system and wherein the model group comprises a volume group in which the file system is stored (Dalal et al, [0018]-[0019] and [0188]). Dalal et al's invention clearly shows on the use of volume groups, which are configured with the file system.

Response to Arguments

Applicant's arguments filed for claims 1-22 have been fully considered but they are not persuasive.

Applicant argues for claims 1, 2, 15, and 16 that Gajjar et al does not disclose monitoring a plurality of existing storage resources.

Gajjar et al disclosed a monitoring a plurality of existing storage resources. Gajjar et al disclosed in [0022]-[0023], that the host of computers/client are connected to the SAN through a fiber channel, and are able to communicate with each other. And Gajjar et al disclosed that the management of storage virtualization does occur [0023]. Further support can be seen in Gajjar et al, [0034], as storage attributes of storage devices are needed to be discovered by the software in VSX in order to characterize the storage device (Gajjar et al, [0034]). Gajjar et al disclosed that the pluralities of storage devices are being monitored.

Applicant argues for claims 1-6, 15-22 and 35 that Gajjar et al does not disclose modeling a new storage resource after a model storage resource.

Gajjar et al disclosed a modeling a new storage resource after model storage in (Gajjar et al, [0037]). Gajjar et al disclosed that the new storage would be modeled after

the model storage created by storage profile, as the storage profile creates the ideal

model storage resource based on the user's needs. Further support can be seen in

(Gajjar et al [0030]-[0031]), as Gajjar et al creates storage by allowing the user to

specify policies that it must meet before to be created. And after the policy has been

established, the storage is provisioned based on the model storage specified in the

policy.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to ANISH SIKRI whose telephone number is 5712701783.

The examiner can normally be reached on 8am - 5pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anish Sikri/
Examiner, Art Unit 2143

/Nathan J. Flynn/
Supervisory Patent Examiner, Art Unit 2143